

## C L A I M S

1. Process for the construction of an edition layout  
comprised by at least one sheet in which is displayed at  
5 least one visual element, the information relative to the  
structure, arrangement and content of said layout being  
stored in a database in identified fields interconnected by  
connections, this information comprising information as to  
the content of said visual elements, stored in a first  
10 assembly of fields, and information concerning the shape,  
arrangement and presentation of said visual elements and  
the structure of the sheets and of the layout itself,  
stored in a second assembly of fields, a visual  
representation according to the reality of at least one  
15 portion of said edition layout being adapted to be  
displayed by means of at least one visualization means,  
which process is characterized in that it consists in  
providing said at least one display of a visual  
representation in the form of a dynamic and interactive  
20 display permitting a modification by an intervener or user  
of the visual representation of the layout (1) or portion  
of a layout (1) and in that it consists in providing an  
automatic control between said at least one visualization  
means (9, 10) and the database (8) such that all  
25 modifications of the layout (1) in question will take place  
in at least one of its visual representations and is  
automatically transposed to the database (8) and that all  
modification of the layout (1) in question taking place  
within the database (8) is automatically displayed in said  
30 at least one visual representation.

2. Process according to claim 1, characterized in that the visual representation of a sheet (2), of a portion of the edition layout (1) or of all of this latter, is produced in a corresponding visualization means (9) by use of a file (12) produced and if desired refreshed at regular intervals and/or under the action of an intervener, from corresponding information from the database (8) and adapted to be interpreted by said visualization means (9) or by transcoding (13) said information, all modification of said visual representation being automatically reflected in said file (12), then in said database (8), or directly into this latter by means of a transcoder (13), substantially in real time or in a differentiated manner.

3. Process according to claim 1, characterized in that the visual representation of one or several sheets (2), of the edition layout (1) or of all of this latter, is produced in at least one visualization means (10) associated with the database (8) and using for this display directly the corresponding information from said database (8), all modification of said visual representation being reflected automatically and in real time as set as a corresponding modification of the related information stored in the database (8), and vice versa.

4. Process according to claims 2 and 3, characterized in that it consists in displaying a same visual representation on at least two visualization means (10) in the form of graphic interfaces, interconnected and connected to the database (8) by a suitable network and each associated with a control interface (16) adapted to permit modifying the visual representation, the display of

said visual representation being if desired shortened on certain of the visualization means (10) and the possibilities of modification being if desired limited or absent in one or several control interfaces (16), as a function of the quality of the user in question and of the authorizations belonging to this latter.

5. Process according to claims 2 to 4, characterized in that it consists in displaying a same visual representation on at least two different visualization means (9 and 10), of which at least one (9) interprets a file (12) produced from information from the database (8) or is connected to a suitable transcoder (13) associated or integral with said base and of which at least one other (10), in the form of a graphical interface, uses directly said information from the database (8), a modification of said visual representation taking place on one of the visualization means (9, 10) being automatically and substantially in real time reflected in the other of the visualization means (10, 9).

6. Process according to any one of claims 1 to 5, characterized in that it consists, for a given edition layout (1), in providing automatic control of the relational, structural, spatial and/or dimensional nature, between at least two elements (3, 3a, 4, 4a; 3', 4') of a same sheet (2) or of at least two different sheets (2, 2') of this layout (1), said automatic control being preferably subject to predetermined rules and to taking account of graphic criteria.

7. Process according to claim 6, characterized in that it consists in providing an automatic control in real time and reciprocally between all the elements (3, 4, 3a, 4a, 3', 4') of all the sheets (2, 2') constituting the edition layout (1).

8. Process according to any one of claims 1 to 7, characterized in that it consists in defining in each sheet (2, 2') at least one container (6, 6a, 6') in which is contained an element (3, 4, 3a, 4a; 3', 4') or a group of elements (3, 4, 3a, 4a; 3', 4'), the containers (6, 6a; 6') of a same sheet (2, 2') or of at least two different sheets (2 and 2') being automatically controlled between each other.

9. Process according to any one of claims 1 to 8, characterized in that it consists, for a first construction of a given edition layout (1), in carrying out the following operations:

a) associating with all or a portion of the elements (3, 3a, 4, 4a; 3', 4') of the database (8) parameters permitting ensuring an automatic and/or manual selection;

b) selecting, from the database (8), by automatic and/or manual means, elements (3, 3a, 4, 4a; 3', 4') adapted to enter into the composition of a sheet (2, 2') of the layout (1);

c) selecting and/or defining a design (5) corresponding to said sheet (2, 2');

d) selecting the order of implantation and the locations of said elements (3, 3a, 4, 4a; 3', 4') on said sheet (2);

e) repeating operations b) to d) for each sheet (2, 2');;

f) ensuring the editing of at least one sheet (2, 2'), of a portion of the layout (1) or of the entire layout (1) on visualization means (9, 10) or the like.

10. Process according to any one of claims 1 to 9, characterized in that the fields comprising, for a given edition layout (1) information as to the parametrage of the arrangement, presentation, the arrangement and structure of the visual elements (3, 4, 3a, 4a; 3', 4') of the sheets (2, 2') and of said layout (1) are suitable to be programmed and modified by a control interface and suitable programming (14) associated with the database (8), said fields being structured hierarchically as to fields of respective parametrage of the edition layout (1) in its assembly, of each sheet (2, 2'), of the group or groups of elements (3, 4, 3a, 4a; 3', 4') of each sheet (2, 2'), of the element or elements of each group and of the presentation of the content of each element (3, 4, 3a, 4a; 3', 4').

11. Process according to any one of the preceding claims, characterized by the fact that there is associated with a given sheet (2) at least one container (6, 6a) as well as at least one element (3, 4) contained in such container (6, 6a) and that there is carried out an automatic control as to position and/or size of the element or elements (3, 4) of at least one container (6) or first container (6a) with one or several other elements (4, 3) of this container (6) or of at least one other container (6a), said possible at least one other container (6a) belonging

to the same sheet (2) as said first container (6) or to another sheet (2').

12. Process according to any one of the preceding  
5 claims, characterized in that it consists in associating  
with at least one sheet (2) at least one container (6, 6a)  
as well as at least one element (3, 4; 3a, 4a) contained in  
such container (6; 6a) and in ensuring automatic control of  
the content of all or a portion of the elements (3, 4) of  
10 at least one container (6) or the content of all or a  
portion of the other elements (4, 3; 3a, 4a) of this  
container (6) or of at least one other container (6a).

13. Process according to any one of claims 8 and 9,  
15 characterized in that it consists in providing the  
possibility of selection of automatic control, either of  
the content, or of the size and/or position, of at least  
one element (3, 4) contained in at least one container (6)  
relative to at least one other element (4, 3) and/or  
20 relative to at least one container (6).

14. Process according to any one of the preceding  
claims, characterized in that it consists in defining a  
hierarchy between all or a portion of the elements (3, 4)  
25 of one or several containers (6) of one or several sheets  
(2) and ensuring an automatic control of the hierarchical  
arrangement of all or a portion of these elements (3, 4)  
among themselves such that an action on one given element  
(3, 4) is automatically reflected in a modification of the  
30 hierarchical order of the other elements (4, 3).

15. Process according to any one of the preceding claims, characterized in that it consists in ensuring a memorization, in the database (8), on the one hand of each of the identifications associated with the elements (3, 4) and on the other hand of all or a portion of the modifications and/or the history of the modifications of each element (3, 4) and of each sheet (2), this in association with such an identification.

16. Process according to any one of the preceding claims, characterized by the fact that it consists in providing filters controlling in a discriminator manner the access to certain constituents of the layout (1) and/or to certain information connected with this latter (1), this as a function of the quality or authorizations of the intervener.

17. Process according to any one of the preceding claims, characterized by the fact that, after or during the construction of a layout (1), the content of at least one sheet (2) is placed in the form of a file (12), adapted to be interpreted by PAO software or by paging, and exported toward this latter and that, when a modification is given to said file via said PAO software or paging, said modification is transferred automatically into the content of said at least one sheet (2) corresponding to said file (12).

18. System for practicing the process according to any one of claims 1 to 17, principally constituted by a database (8) storing information relative to the structure, arrangement and content of an edition layout (1) in the

identified fields interconnected by corresponding connections, and by at least one visualization means (9,10) adapted to display a visual representation according to the reality of at least one portion of said edition layout (1),  
5 comprised by at least one sheet (2) in which is displayed at least one visible element (3, 4), which system is characterized in that said at least one visualization means (9, 10) carries out a dynamic and interactive display permitting modification, by an intervener or user, of the  
10 visual representation of the layout (1) or a portion of the layout (1) and in that it comprises an automatic control between said at least one visualization means (9, 10) and the database (8) such that all modification of the layout (1) in question taking place in one of the visual  
15 representations is automatically transposed into the database (8) and that all modification of the layout (1) in question taking place in the database (8) is automatically displayed in said at least one visual representation.

20 19. System according to claim 18, characterized in that it moreover comprises means for using operations according to any one of claims 1 to 18, in particular a control interface (15, 16) associated with each visualization means (9, 10) and a control and programming  
25 interface (14) associated with the database (8).